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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,522	04/30/2001	Tomoyuki Nakano	112857-221	5535
29175	7590	09/15/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			COLIN, CARL G	
			ART UNIT	PAPER NUMBER
			2136	

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/846,522

Applicant(s)

NAKANO ET AL.

Examiner

Carl Colin

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11/02, 12/03
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1. Pursuant to USC 131, claims 1-20 are presented for examination.

#### ***Specification***

2. The disclosure is objected to because of the following informalities: on page 6, line 2, reference number "25" should be --20--. Appropriate correction is required.

#### ***Drawings***

3. Figures 6 and 7 are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the reference signs: SP6 not mentioned in the description. Appropriate correction is required.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

**Claim 14** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4.1 Claim 14 recites the limitation " the private key " on line 17. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5.1 **Claims 1, 2, 4, 13-17, 18, and 20** are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,076,164 to **Tanaka et al.** (*Applicant IDS*).

Art Unit: 2136

5.2 As per claims 1, 2, 4, 13-17, 18, and 20, **Tanaka et al.** discloses a user authentication system, comprising: a data holding medium for holding a common key unique to a user, used in a common-key encryption method, for example (see column 4, lines 14-22 and abstract and drawings); an authentication apparatus for holding the common key used in the common key encryption method and a private key used in a public-key encryption method, each unique to the user, for example (see column 6, and abstract and drawings); and an information processing apparatus connected to the authentication apparatus in an always-communicable manner and provided with a function for performing authentication by the public-key encryption method, for example (see column 3, and abstract and drawings); wherein the authentication apparatus performs authentication by using the common key held by the data holding medium and the common key held by the authentication apparatus, in response to a user authentication request sent from the information processing apparatus, and, only when the user has been authenticated, performs processing for making the information processing apparatus authenticate the user by using the private key corresponding to the user, for example (see column 4, line 50 through column 5, line 15). **Tanaka et al.** discloses that the information processing apparatus can be performed by either the user terminal or the server authentication, and further discloses that the invention is not limited to the type of cryptographic method used. Even though one embodiment uses public key, common key can also be used for high speed processing, for example (see column 9, lines 8-25 and column 7, lines 60-67).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6.1 **Claims 3, 5-7, 8, 9, 10-12, and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,076,164 to **Tanaka et al.**

6.2 **As per claims 3, 9, and 19, Tanaka et al.** substantially teaches information processing apparatus as a user terminal or server, but does not explicitly specify a mobile communication apparatus. However, it is very well known in the art that a mobile apparatus such as a laptop, PDA, etc. can performed the same function as described by the **Tanaka et al.** Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a mobile apparatus as opposed to a laptop in order to have more mobility without departing from the spirit and scope of the invention described by **Tanaka et al.**, for example (see column 9, lines 8-25).

As per claims 5-7, **Tanaka et al.** discloses a method and system for using both authentication methods to benefit from the security of public cryptography and the high speed processing of common key cryptography, as it is also well known in the art. Claims 5-7 disclose the same inventive concept as claims 1 and 2 and therefore, they are rejected on the same rationale as claim 1 except for reciting performing, only when the user has been authenticated, processing for authenticating the user by a public-key encryption method. **Tanaka et al.** further discloses that the invention is not limited to the type of cryptographic method used. Even though one embodiment uses public key, common key can also be used for high speed processing, for example (see column 9, lines 8-25 and column 7, lines 60-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Tanaka et al.** to use public key for the second authentication as suggested by **Tanaka et al.** depending on user's design choice for speed or security.

**Claims 8, 10-12**, disclose the same limitation as claims 4, 16, 17 above. Therefore they are rejected on the same rationale as the rejection of claims 4, 16, and 17.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Colin whose telephone number is 703-305-0355. The examiner can normally be reached on Monday through Thursday, 8:00-6:30 PM.

Art Unit: 2136

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

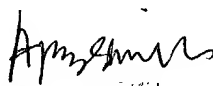
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cc

Carl Colin

Patent Examiner

September 10, 2004

  
AYAZ SHEIKH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100